Exhibit P-40, Budget Line Item Justification: FY 2018 Navy **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1:

0513 / AEA Systems

Modification of Aircraft

Program Elements for Code B Items: N/A Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

ID Code (A=Service Ready, B=Not Service Ready): A

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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	243.846	36.233	51.900	52.960	0.000	52.960	46.982	50.936	70.403	71.807	172.893	797.960
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	243.846	36.233	51.900	52.960	0.000	52.960	46.982	50.936	70.403	71.807	172.893	797.960
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	243.846	36.233	51.900	52.960	0.000	52.960	46.982	50.936	70.403	71.807	172.893	797.960
(The following	(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)											
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line item funds modifications to Airborne Electronic Attack (AEA) products used on multiple platforms. Modifications budgeted and programmed include: procurement and enhancement of Low Band Transmitter Antenna Group inventory, AN/ALQ-99 Tactical Jamming System upgrades and related sustainability, capability, and viability modifications. AEA will support procurement of new technologies and equipment as needed to combat emerging electronic warfare technology and systems.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1:

Modification of Aircraft

0513 / AEA Systems

ID Code (A=Service Ready, B=Not Service Ready): A

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Date: May 2017

Line Item MDAP/MAIS Code: N/A

	Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/ MAIS Code	Quantity / Total Cost (Each) / (\$ M)					
P-40a	Inactive OSIPS				- / 12.400	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11) (RELIABILITY / MISSION CAPABILITY)				- / 231.446	- / 36.233	- /51.900	- / 52.960	- / 0.000	- / 52.960
P-40	Total Gross/Weapon System Cost				- / 243.846	- / 36.233	- / 51.900	- / 52.960	- / 0.000	- / 52.960

^{*}Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:

The Department of the Navy has been tasked with accomplishing the Nation's Airborne Electronic Attack (AEA) mission in various theaters of operation over the last few decades. The AEA capability fielded by the Navy on the

EA-6B Prowler has been a high demand, low density asset. The Navy and Marine Corps are transitioning away from the EA-6B Prowler aircraft; the Navy has transitioned to the EA-18G Growler aircraft and the Marine Corps

is transitioning to an organic capability utilizing electronic warfare payloads flown on Marine Corps aircraft. Stable investment in AEA systems will ensure continued availability of AEA capability to meet warfighter demand.

Investment in the AN/ALQ-99 Tactical Jamming System will ensure continued system availability until Next Generation Jammer Full Operational Capability.

Airborne Electronic Attack (AEA) System procurements and related efforts are required to combat emerging electronic warfare technology and systems. Investment in AEA System efforts will ensure that sufficient AEA capability

is available to meet warfighter requirements.

Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Inactive OSIPS

Aggregated Items Title:

1506N / 05 / 1 0513 / AEA Systems

							-	-	- ,	-							-					
					F	Prior Year	s		FY 2016			FY 2017		FY	/ 2018 Ba	se	FY	/ 2018 OC	0	FY	/ 2018 Tot	al
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)		
A Kits/Recurring																						
INACTIVE OSIPS	Α		-	-	12.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Subtotal: A Kits/Recurre	ing		-	-	12.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Total			-	-	12.400		-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Moto: Subtotals or To	ato: Subtotals or Totals in this Exhibit D 40a may not be exact or sum exactly, due to rounding																					

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

Remarks:

Models of Systems Affected: MULTIPLE PLATFORMS Type Modification: RELIABILITY / MISSION CAPABILITY

Inactive OSIPs prior year totals.

Exhibit P-3a, Individual Modification: FY 2018 Navy		Date : May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0513 / AEA Systems	Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)
ID 0 1	11D 4 D (114 10 0	•

ID Code (A=Service Ready, B=Not Service Ready):		M	MDAP/MAIS Code:							
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total				
Procurement Quantity (Units in Each)	-	-	-	-	-	-				
Gross/Weapon System Cost (\$ in Millions)	231.446	36.233	51.900	52.960	0.000	52.960				
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-				
Net Procurement (P-1) (\$ in Millions)	231.446	36.233	51.900	52.960	0.000	52.960				
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-				
Total Obligation Authority (\$ in Millions)	231.446	36.233	51.900	52.960	0.000	52.960				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)										
Initial Spares (\$ in Millions)	-	-	-	-	-	-				
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-				

Description:

The AN/ALQ-99 Tactical Jamming System (TJS) requirement is directly driven by the EA-18G and EA-6B requirement and inventory numbers.

This Operational and Safety Improvement Program covers system modifications required to improve AN/ALQ-99 reliability, maintainability, availability, resolve obsolescence issues, and correct deficiencies found in testing or in the

field. Engineering changes are needed to enhance mission capability and integration of evolving Electronic Warfare systems to address increased mission requirements and emerging threats in support of EA-6B and EA-18G aircraft.

The out of production transmitter inventory is static and is being stretched due to increasing electronic warfare aircraft numbers and mission requirements. The AN/ALQ-99 TJS consists of six transmitters that are mission configurable depending on target threat. Reconstitution of reclaimed United States Air Force (USAF) EF-111 Band 4 through 8 transmitters to United States Navy (USN) configuration will alleviate significant jammer

inventory shortfalls for EA-6B and EA-18G platforms.

INSTALLATION EQUIPMENT N/R: AN/ALQ-99 TJS obsolescence mitigation efforts, capability enhancements and reliability enhancements require non-recurring engineering for AN/ALQ-99 TJS components such as the Hardback, Pod Interface Unit (PIU), the Universal Exciter Upgrade (UEU), Ram Air Turbine Generator (RATGEN), Low Band Transmitter Antenna Group (LBT AG), Band 4, Band 5/6, Band 7, Band 8 and Band 9/10 Transmitters and Antennas. Efforts planned for FY 2018 include engineering and design work for a modified AN/ALQ-99 Ram Air Turbine Generator (RATGEN) with production commencing in FY 2019 and the consolidation of the Low Band Transmitter and Band 4 Transmitter into a single form factor with production commencing in FY 2019, referred to as Low Band Consolidation (LBC). Additionally, funds will provide for the re-engineering of depot support equipment in order to resolve AN/ALQ-99 readiness degraders.

SUPPORT EQUIPMENT: Introduction of new/modified AN/ALQ-99 pod equipment requires new/modified organizational, intermediate, and depot level support equipment; such as modifications and additions to the AN/ALQ-99 pod test set to support LBT AG and modifications to the High Power Device Test Set to extend frequency coverage to test Band 9/10 transmitters. Required changes to existing support equipment will improve reliability, maintainability, availability, address obsolescence issues, and correct deficiencies found in testing or in the field.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone III was achieved in April 2008 and a Full Rate Production contract was awarded June 2008. In response to the increasing force protection requirement, an Early Operational Capability for LBT was met in August 2006.

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Exhibit P-3a, Individual Modification: FY 2	2018 Navy				Date: May 2017		
Appropriation / Budget Activity / Budget \$ 1506N / 05 / 1	Sub Activity:	P-1 Line Item Number 0513 / AEA Systems	r / Title:	Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)			
ID Code (A=Service Ready, B=Not Service Ready):			MDAP/MAIS Cod	le:			
Models of Systems Affected: MULTIPLE PLATFORMS		ication Type: RELIABIL BILITY	ITY / MISSION	Related RDT	&E PEs:		
	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	
Procurement		,	,		,		
Modification Item 1 of 1: Airborne Electronic Attack (AEA) Systems (OSIP 007-11)		_			_		
B Kits							
Recurring							
2.1.1) Transmitters - Organic (1)	11 <i>l</i> 12.137	- 1 -	15 / 19.410	16 / 21.120	- 1 -	16 / 21.12	
2.1.4) Archived Mods - Organic (2)	205 / 131.642	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	
Subtotal: Recurring	- /143.779	- / -	- /19.410	- /21.120	- / -	- /21.12	
Non-Recurring							
2.2.1) Installation Equipment N/R - Organic (3)	- /42.028	- /30.115	- /23.082	- <i>l</i> 22.195	- 1 -	- <i>I</i> 22.19	
Subtotal: Non-Recurring	- /42.028	- /30.115	- /23.082	- /22.195	- / -	- /22.19	
Subtotal: Airborne Electronic Attack (AEA) Systems (OSIP 007-11)	216 / 185.807	- /30.115	15 / 42.492	16 / 43.315	- / -	16 / 43.31	
Subtotal: Procurement, All Modification Items	- /185.807	- /30.115	- /42.492	- /43.315	- / -	- /43.31	
Support (All Modification Items)							
3.1) Engineering Change Orders	- 18.937	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	
3.2) Data	- 10.222	- 1 -	- /0.082	- /0.083	- 1 -	- / 0.08	
3.3) Support Equipment	- /16.070		- /3.727	- /3.798	- 1 -	- /3.79	
3.4) Integrated Logistics Support ⁽⁴⁾	- / 15.320		- /3.344	- /3.550	- 1 -	- /3.55	
3.5) Other Support ⁽⁵⁾	- /5.090		- /2.255	- /2.214	- 1 -	- /2.21	
Subtotal: Support	- /45.639	- /6.118	- /9.408	- /9.645	- / -	- /9.64	
Installation							
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	
Total							
Total Cost (Procurement + Support + Installation)	231.446	36.233	51.900	52.960	0.000	52.96	

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LI 0513 - AEA Systems Navy Page 5 of 6 P-1 Line #30

Exhibit P-3a, Individual Modification: FY 2018 Navy	Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Tit 0513 / AEA Systems	ile:	Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)
ID Code (A=Service Ready, B=Not Service Ready):		MDAP/MAIS Code:	

ID Code (A=Service Ready, B=Not Service Ready):

Modification Item 1 of 1: Airborne Electronic Attack (AEA) Systems (OSIP 007-11)

Footnotes:

- (1) Transmitter unit cost includes procurement of matching antenna. FY 2018 procurement includes Antenna Modifications such as Batwing and re-designed vertically polarized (VPOL) Low Band Transmitter
- (2) Archived mods contain previously procured AN/ALQ-99 Tactical Jamming System Low Band Transmitters, Radomes, and Hardbacks.
- (3) Installation Equipment N/R fluctuates due to phasing of various engineering efforts.
- (4) ILS cost growth in excess of approved OSD indices in FY 2019 is due to the start of production efforts for Low Band Consolidation and Ram Air Turbine Generator Modification Kit.
- (5) FY 2016 Other Support adjusted \$1.000M with a concurrent \$0.500M increase for Low Band Consolidation. Other Support cost growth in FY 2017 due to the addition of Low Band Consolidation program.